

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (ORIGINAL) A method for producing Group-III-element nitride single crystal, comprising:
 reacting at least one Group III element selected from the group consisting of gallium (Ga), aluminum (Al), and indium (In) with nitrogen (N) in a mixed flux containing sodium (Na) and at least one of an alkali metal (other than Na) and an alkaline-earth metal, thereby causing Group-III-element nitride single crystal to grow.

2. (CURRENTLY AMENDED) The method according to claim 1, wherein the Group III element is gallium (Ga), and the Group-III-element nitride single crystal is gallium (Ga) nitride (GaN) single crystal.

3. (CURRENTLY AMENDED) The method according to claim 1, wherein the ~~alkali metal is at least one selected from the group consisting of lithium (Li), potassium (K), rubidium (Rb), cesium (Cs), and francium (Fr), and the alkaline earth metal is at least one selected from the group consisting of calcium (Ca), strontium (Sr), barium (Br), and radium (Ra)~~ mixed flux is a mixed flux of sodium (Na) and calcium (Ca).

4. (CURRENTLY AMENDED) The method according to claim 1, wherein the mixed flux is a mixed flux of sodium (Na) and ~~calcium~~ lithium (Li).

5. (CURRENTLY AMENDED) The method according to ~~claim 4~~ claim 1, wherein ~~a ratio of the calcium (Ca) to the total of the sodium (Na) and the calcium (Ca) is in a range from 0.1 to 99 mol%~~ the mixed flux is a mixed flux of sodium (Na), calcium (Ca), and lithium (Li).

6. (CURRENTLY AMENDED) The method according to ~~claim 1~~, wherein ~~the mixed flux is a mixed flux of sodium (Na) and lithium (Li)~~ the reaction is carried out under conditions of a temperature of 100°C to 1200°C and a pressure of 100 Pa to 200 MPa.

7. (CURRENTLY AMENDED) The method according to ~~claim 6~~ claim 1, wherein ~~a ratio of the lithium (Li) to the total of the sodium (Na) and the lithium is in a range from 0.1 to 99 mol%~~ nitrogen (N) containing gas is used as a nitrogen source.

8. (CURRENTLY AMENDED) The method according to ~~claim 1~~ claim 7, wherein ~~the reaction is carried out under conditions of a temperature of 100°C to 1200°C and a pressure of 100 Pa to 200 MPa~~ nitrogen (N) containing gas is at least one selected from the group consisting of nitrogen (N₂) gas, ammonia (NH₃) gas, and a mixed gas containing the nitrogen (N₂) gas and the ammonia (NH₃) gas.

9. (CURRENTLY AMENDED) The method according to ~~claim 1~~, wherein ~~nitrogen (N) containing gas is used as a nitrogen source~~ the single crystal is transparent.

10. (CURRENTLY AMENDED) The method according to ~~claim 9~~ claim 1, wherein ~~the nitrogen (N) containing gas is at least one of nitrogen (N₂) gas and ammonia (NH₃) gas~~ a Group-

III-element nitride is provided beforehand, and the Group-III-element nitride is brought into contact with the mixed flux to cause new Group-III-element nitride single crystal to grow using the Group-III-element nitride as a nucleus.

11. (CURRENTLY AMENDED) The method according to ~~claim 9~~ claim 10, wherein the ~~nitrogen (N) containing gas is ammonia (NH₃) gas or a mixed gas containing the ammonia (NH₃) gas and nitrogen (N) gas~~ the Group-III-element nitride that serves as the nucleus is single crystal or amorphous.

12. (CURRENTLY AMENDED) The method according to ~~claim 1~~ claim 10, wherein a ~~Group-III element nitride is provided beforehand, and the Group-III element nitride is brought into contact with the mixed flux to cause new Group-III element nitride single crystal to grow using the Group-III element nitride as a nucleus~~ the Group-III-element nitride that serves as the nucleus is in a form of a thin film.

13. (CURRENTLY AMENDED) The method according to claim 12, wherein the ~~Group-III element nitride that serves as the nucleus is single crystal or amorphous~~ thin film is formed on a substrate.

14. (CURRENTLY AMENDED) The method according to ~~claim 12~~ claim 10, wherein the ~~Group-III element nitride that serves as the nucleus is in a form of a thin film~~ a nitride is present in the mixed flux at least at an initial stage of the reaction.

15. (CURRENTLY AMENDED) The method according to claim 14, wherein the ~~thin film is formed on a substrate~~ nitride is at least one selected from the group consisting of Ca_3N_2 , Li_3N , NaN_3 , BN, Si_3N_4 , and InN.

16. (ORIGINAL) The method according to claim 1, wherein the mixed flux contains an impurity as a dopant.

17. (ORIGINAL) The method according to claim 16, wherein the impurity is at least one selected from the group consisting of carbon (C), oxygen (O), silicon (Si), alumina (Al_2O_3), indium (In), aluminum (Al), indium nitride (InN), silicon oxide (SiO_2), indium oxide (In_2O_3), zinc (Zn), magnesium (Mg), zinc oxide (ZnO), magnesium oxide (MgO), and germanium (Ge).

18. (CURRENTLY AMENDED) ~~The method according to claim 1, which causes transparent single crystal to grow~~ Group-III-element nitride single crystal obtained by the method according to claim 1.

19. (CURRENTLY AMENDED) ~~A method for producing Group-III element nitride single crystal, comprising: reacting at least one Group III element selected from the group consisting of gallium (Ga), aluminum (Al), and indium (In) with nitrogen (N) in a metal flux containing at least one of an alkali metal and an alkaline earth metal, thereby causing Group-III element nitride single crystal to grow,~~

~~wherein a Group-III element nitride is provided beforehand, and the Group-III element nitride is brought into contact with the metal flux to cause new Group-III element nitride single~~

~~crystal to grow using the Group III element nitride as a nucleus~~ Gallium nitride (GaN) single crystal obtained by the method according to claim 2.

20. (CURRENTLY AMENDED) ~~The method according to claim 19, wherein the Group III element is gallium (Ga), and the Group III element nitride single crystal is gallium (Ga) nitride single crystal~~ A semiconductor device comprising the Group-III-element nitride single crystal according to claim 18.

21. - 60. (CANCELLED)